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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,852	06/02/2000	ANTOON JOHANNES GERARDUS VAN ROSSUM	05032.86955	8871
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BANNER & WITCOFF 28 STATE STREET 28TH FLOOR BOSTON, MA 02109			EXAMINER	
			KORNAKOV, MICHAIL	
		ART UNIT	PAPER NUMBER	
		1746		
		DATE MAILED: 08/25/2003		
		<i>18</i>		

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicant No.	Applicant(s)
	09/508,852	ANTOON JOHANNES GERARDU VAN ROSSUM
	Examiner Michael Kornakov	Art Unit 1746

-- The MAILING DATE of this communication appears in the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 August 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 30-33,36 and 39-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 30-33,36 and 39-49 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/06/2003 has been entered.

2. Claims 30-33, 36, 39-49 are pending. Applicants amended claim 30 to introduce specific monomers on which the claimed polymers are based (previously these limitations were present in claim 38), and the limitations on glass transition temperature and polydispersity (previously found in claims 34 and 35).

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Before the prior art rejection is discussed, Examiner would like to elaborate on claim interpretation.
 - In presently amended claim 30 polymer "... is based on one or more monomers selected from the group...". This is interpreted in a way that any polymer that

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has one or more of these monomers but does not exclude other monomers meets the above limitation.

- The limitation "and wherein the protective coating is on a substantially transparent substrate..." will not render the claim patentable if all other limitations are anticipated or obvious, because IT IS THE PROTECTIVE COATING what is claimed, not the substrate, and no matter where this coating is present, only chemical make up and characteristics of the product per se may distinguish it from the coatings of the prior art, not the place where such coating is applied.

5. Claims 30-33, 36, 39-41, 44, 46-48 stand rejected under 35 U.S.C. 102(b) as being anticipated by EP 0578 498.

EP'498 discloses an alkali soluble film, (coating) comprising an acrylic polymer as a binder, which acrylic polymer is obtained by bulk polymerization and has a number average molecular weight 1,000-1,000,000 and M_w/M_n ratio of **less than 5**. A glass transition temperature of the binder is -80⁰C or higher (see abstract).

Table 2 on pages 19 and 20 provides the compositions of a binder and its characteristics. It is seen that the binder includes the monomers as instantly claimed and that the characteristics of a binder, such as weight average molecular weight, polydispersity and glass transition temperature are clearly within the claimed range. Especially anticipating is a preferred embodiment, wherein cited a polymer based on acrylic acid in a proportion from 50-100% by weight in its structure and having the acid

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value of 65 mg/g or higher, a number average molecular weight within the range of 1,000 - 50,000, a glass transition temperature of 30°C and a molecular weight distribution (polydispersity) of 3 or less. This is nothing else but clear anticipation of a polymer per se with all its characteristics.

As for the acid value number, a broad teaching of EP'498 is that the acid value is higher than 65 mg/g, and there are several specific examples, such as example 2-14 and 2-15 presented in table 2-5 on page 42, which cite the acid values of **150mg/g**, which is a specific point within the claimed range. The acrylic polymer of EP'496 when used in compositions for coatings and adhesives or water inks employs different additives, such as reinforcing agents, fillers, antioxidants, plasticizers, lubricants (page 4, lines 36-39), such as carbon black, silica based anhydrous salycilic acid **calcium carbonate** (which is named as a pigment in the instant claim 40), imidazoles, naphthylamides, stearic acid, etc. (page 4, lines 49-55), pigments , dyes or the like (page 7, lines 30, 31).

EP'498 further teaches that for an alkali soluble adhesive the polymer binder is combined with solvent wax, tackifier, and if 100 parts of a polymer is combined with 0-400 parts of solvent, 0-50 parts of wax, and 0-50 parts of tackifier as described on page 5, lines 56-58, then the amount of a binder as set forth in the instant claim 39 is clearly within the claimed range. Example 2-21 shows the production of a polymer, as **pigment dispersing agent**, which has weight average molecular weight 32,000, polydispersity 2.2, and acid value of 160mg/g.

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EP'498 utilizes titanium dioxide as a pigment (page 7, lines 40-42), and when mixed with a pigment the recipe of a composition may contain 40-200 parts of coloring material, 0-100 parts of resin, etc, described on page 7, lines 33-36. These numbers give the ratio of a pigment to a resin within the range of the instant claim 41. For the defoaming agents surfactants can be used (page 7, lines 44,45). The surfactants are **named as pigment dividers** in the instant specification, therefore EP'498 covers the subject matter of the instant claim 44.

With regard to new claims 46-48 EP'498 teaches that when the composition is used as **an alkali soluble protective film** it is suitable as a **protective film for agricultural use** (page 6, lines 37-43). The composition may contain 40-200 parts of pigment, 100 parts of resin, 30-100 parts of alkali, 125-250 parts of solvent (page 7, lines 38-45). For the alkali ammonia, triethylamine, ethanolamine, etc. are used (page 7, lines 44, 45).

6. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP'498. EP'498 clearly suggests that the composition obtained can be used as a temporarily protective film for agricultural use (page 6, lines 42, 43). Thus it would have been obvious to a person skilled in the art that such protective action for the agricultural use is applied to a wall of a greenhouse with the reasonable expectation of success.

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7. Claims 30-33, 36, 39-49 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0478 067 or in the alternative under 35 USC 103(a) as obvious over EP 0478067.

EP'067 discloses a protective coating and a method of forming such coating against solar radiation for glass plates and outer surfaces of horticultural greenhouses (compare with the instant claims 18, 19) by spraying a composition and drying it on the said substrate (see abstract, page 2, lines 1-4). The product of EP'067 consist of a polymer and an inorganic substance, which in dried condition of the product is light reflective, in particular the additives are one or more inorganic pigments, at least one binding agent (adhesion promoter), at least one surface active agent (pigment divider), a preserving agent, etc. (page 2, lines 41-45). The product used to remove the coating made of above described product is formed from a basic component, at least one complex former and at least one surface active agent (page 2, lines 49-51). As an example of a binder forming polymer the copolymer of **styrene** and maleic anhydride is used, (see Example in the Composition product 1,lines 15-25 of page 3). The finely divided calcium carbonate, which is used as a pigment is utilized in the amount of 30-60 % by weight , which is clearly within the range of the instant claim 10.

Thus all the limitations of the instant claims in terms of the composition, its removability, and structure of a binder, as well as for the process of forming a protective coating are expressly met by the disclosure of EP'067. The EP'067 does not specifically name the values of weight average molecular weight, acid value, glass transition temperature and polydispersity. However, first of all for the named copolymer of styrene

and maleic anhydride such values are reference values, and furthermore, since the polymer is within the scope of the instant claims its characteristics are inherently the same as instantly claimed. The above rejections were made in the sense of *In re Fitzgerald* 205 USPQ 594 (CAFC) (Inherency) or *In re Spada*, 911 F 2d 705, 709 15 USPQ 1655, 1658 (Fed. Cir. 1990), which settles that when the claimed compositions are not novel, they are not rendered patentable by recitation of properties, whether or not these properties are shown or suggested in prior art.

8. Claims 30-33, 36, 39-49 stand rejected under 35 U.S.C. 103(a) as being unpatentable over EP'0533 367 in view of EP 0478067.

EP'367 discloses a copolymer for protective coating formed from alpha, beta-unsaturated monomers, carboxylic acid monomers and amphiphilic monomers. The protective coating has an average molecular weight **7,000-25,000** and provides desired properties of rapid drying, substantial film strength and **easy removal with alkaline solutions.** (see abstract). The composition according to EP'367 contains additives, such as surfactants, UV absorbers, corrosion inhibitors, antioxidants, anti-foaming agents (page 2, lines 50-53). Among the monomers suitable for production of a polymer the monomers of the instant claim 6 are clearly named on page 3, lines 18-20. The coating composition was tested for its drying property , its resistance to acidic rain rust, and for its removability with alkaline solution (page 4, lines 36-40). For this purpose the transparent plates were coated and dried, and after that the protective coating was

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removed from the plates (page 4, lines 39-58). Tables on page 6 and 7 provide the characteristics of a composition, such molecular weight, glass transition temperature, acid value, with all these characteristics clearly within the claimed range. Also presented are drying properties and resistance to acid rain, which are superior for the obtained composition.

EP'367 does not disclose the presence of a pigment in the composition. However, EP'367 provides a motivation to include a pigment, and in particular a pigment for making a composition for protective coating suitable for outside transparent walls, by stating that its protective coating shows a good resistance for acid rain and other weather related conditions, as discussed above.

EP'067 discloses a protective coating and method of its forming having a binder polymer and a calcium carbonate pigment in the amount as instantly claimed. Based on the similarity of the used binders, their intended uses, removability by alkaline solution, one skilled in the art would have found it obvious based on the suggestion of EP'367 to include a pigment of EP'067 into a binder composition of Ep'367 to impart the solar resistance properties to this composition along with already existing property of acid rain resistance.

9. Claims 42, 43 and 45 stand rejected under 35 U.S.C. 103(a) as being unpatentable over EP'498 in view of Dueber et al (U.S. 6218,074)

EP'498 teaches identical composition as instantly claimed intended to identical purposes. EP'498 differs from the instant claims 42, 43 and 45 by not specifying the use

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of adhesion promoters, and thickeners. However, by the disclosed application of a composition as pressure sensitive and hot melt adhesive, EP'498 motivates a person skilled in the art to use adhesion promoters. And by disclosing the composition useful for making protective films by molding, EP'498 motivates a person skilled in the art utilize compounds that regulate viscosity of a composition.

The use of adhesion promoters and thickeners in coating compositions is routinely used in the art.

Thus Dueber discloses protective coating film (abstract) based on acrylate copolymers, having molecular weight and polydispersity within the claimed range (col. 2, lines 55-67). The composition may also contain **adhesion promoters to improve adhesion**, of the coating during processing or in the end-use product. (col. 14, lines 57-60). The compositions may also contain other organic fillers or inorganic particulates, **microcrystalline thickeners**, such as microcrystalline cellulose to modify the mechanical or chemical properties required during processing or end use (col. 14, line 40).

Therefore, a person skilled in the art motivated by suggestion of EP'498 to modify the properties and application of a composition by applying different additives, and based on the similarity of compositions and purposes of EP'498 and that of Dueber, would have found it obvious to utilize adhesion promoters and thickeners, as per Dueber in EP'498 to achieve and modify the adhesive and viscous characteristic of composition, and thus to arrive at the instantly claimed subject matter.

Response to Arguments

10. Applicant's arguments filed August 6, 2003 have been fully considered but they are not persuasive.

Relative EP'498:

The crux of Applicants' arguments is

- a) that in EP'498 there is no guidance to select the vinyl polymer having the properties of the instant claims and
- b) that there is no guidance to use the binder on transparent substrate as a protective coating on substantially transparent substrate.

In response to (a) it is noted that not only the guidance is present in EP'498, but the very identical polymer with very identical characteristics to those instantly claimed as shown above.

In response to this Applicants' attention is respectfully drawn to abstract that recites "alkali soluble film", as well as to page 31, lines 29-34, which discuss the removability of adhesive coating. With regard to a substrate coated by a composition, it is first noted that since the composition is identical to that instantly claimed, it will be capable of being coated on a transparent substrate. Since the prior art teaches the identical chemical structure, the properties and characteristics applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705,709,15 USPQ2d 1655,1658 (Fed. Cir. 1990). The significance and patentability of the limitation on what kind of a substrate is coated by the claimed composition is discussed above in

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paragraph 4 of the present communication. And last, but not least, page 48, lines 15-17 show the coating of a polyethylene plate with disclosed composition. This reads on the limitation of substantially transparent substrate of the instant claims. It is further noted with regard to Applicants' argument about the suitability or unsuitability of EP'498 polymers for the Applicants' "intended use", it is well settled by the Courts that the prior art reference disclosing the composition need not disclose a utility to defeat patentability under 35 U.S.C. § 102. *In re Schoenwald*, 964 F. 2d 1122, 1123-1124, 22 USPQ 2d. 1671, 1672-1673 (Fed. Cir. 1992).

The last Applicants' argument on EP'498 resides in one of the Examples wherein the molecular weight of a polymer is out of the scope of the instant claims 30 and 46. In response to this it is noted that the broader disclosure and other examples do disclose the identical polymers with molecular weight within the claimed range, and Applicants are reminded that disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971).

Relative EP'067:

The crux of Applicants' arguments appears to hinge on a preferred embodiment of EP'067 housing a styrene maleic anhydride copolymer. However, Applicants are reminded that the reference is not limited to the preferred embodiments, may be relied upon for all that it would have reasonably suggested to one of the ordinary skill in the art, including not only preferred embodiments, but less preferred and even

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nonprefreed. Consult *In re Praten*, 162 USPQ 541, *In re Boe*, 148 USPQ 507 (CCPA 1966), *Merc & Co v. Biocraft Labs, Inc.*, 874 F 2d 804,807 10 USPQ 2nd 1843, 1846 (Fed. Cir.). The styrene-maleic anhydride polymer of EP'067 is perfectly readable on the limitations of the narrowest claim 38 that recites "vinyl monomer based on one or more monomers selected from.... **Styrene**"

The Declaration under 37 CFR 1.132 filed July 24, 2002 is insufficient to overcome the rejection of claims based upon EP'067 as set forth in the present Office action because:

a) the Declaration discusses only one polymer, identified above as a preferred embodiment, and therefore discusses the issue that is narrower than the claims. Evidence presented to rebut prima facie case of obviousness must be commensurate in scope with claims to which it pertains; evidence offered by way of affidavit that is considerably narrower in scope than claimed subject matter is not sufficient to rebut PTO's prima facie case, *In re Dill*, 202 USPQ 805 (CCPA 1979), see *also In re Grasselli*.

However, EP'067 teaches that besides the copolymer of styrene-maleic anhydride, as exemplified in a single example on page 3, OTHER copolymers with free carboxylic acid residues are also suitable as binding agents (page 3, lines 4-6). .

b) the Declaration states that the binder of the instant claims has superior characteristics compare to those of EP'067. Furthermore, the Declaration names the

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specific polymer SMA 2625 allegedly used in EP'067. This is not found persuasive, because

- a) no product sheet as attached;
- b) no data presented by Applicants as to what is the polymer that EP'067 utilizes.

However, the instant specification does not provide any comparison of characteristics of obtained binders with the binders of prior art. Nor did the Declaration under 37 CFR 1.132 presented a valid side-by-side comparison between their binders and those disclosed by EP'067, as per *In re Dunn*, 349 F. 2d 433, 146 USPQ 489 (CCPA). Indeed there are a number of copolymers of styrene with maleic anhydride and/or maleic acid that meet criteria set forth in the instant claims.

Since the properties of such binders are not elucidated by EP'067, the rejection in the alternative was made under 35 USC 103 (a) in terms of characteristics, while the rejections in terms of a make-up of composition is clear anticipation.

In order to rebut *prima facie* case of obviousness in terms of characteristics, Applicants should have presented a valid side-by-side comparison between their binder (commensurate in scope with the claim) and that disclosed by EP'067. *In re Dunn*, 349 F. 2d 433, 146 USPQ 489 (CCPA 1965)

R elativ to 1039a) rej ction over EP'0533 367 in view of EP 0478067:

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Applicants arguments reside in contention that EP'367 does not teach or suggest forming a protective coating on a transparent substrate. First of all the method of forming a protective coating has nothing to do with claims 30-33, 36-45. These claims are directed to a composition, and its intended use does not render the composition patentable over the known or obvious composition of the prior art. The deficiency of a composition is only the absence of a pigment, wherein the conventionality of such addition is proved by the EP'067 disclosure.

As for the method of forming a composition this rejection is made in addition to a previously applied 102/103 rejection over EP'067. Had the reference EP'367 disclosed the application of a composition on a transparent substrate the claims directed to a method would have been rejected under 35 USC 102, not 103.

11. This is a continuation of applicant's earlier Application No. 09/508,852. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (703) 305-0400. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (703) 308-4333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 2450.

Michael Kornakov
Examiner
Art Unit 1746

MK



RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
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